Claims: -

1. A margarine blend and spread consisting of 60 - 95% of a liquid oil such as sunflower oil, Canola oil, soy oil, pea nut oil, rice bran oil, olive oil, safflower oil, corn oil or marine oil or the blend of any of the above liquid to be blended with a Trans free hard structural fat at 5 - 40% level whereby the said hard structural fat is made from selectively fractionated non-hydrogenated palm oil fraction, which is interesterified with lauric fat such as dry fractionated non-hydrogenated palm kernel fraction without using hydrogenation process and without using organic solvent or detergent for fractionation.

2. A margarine/spread fat blend according to claim 1, where the liquid oil blend has high ploy/mono unsaturated level such that in the total fat blend the poly/mono unsaturation level exceeds 40% so that health claim such as high poly/mono unsaturated, low saturated fatty acid (SAFA) margarine/spreads can be made.

3. A hard structural fat according to claim 1 is produced without using hydrogenation process so that Trans fatty acid residue produced during the hydrogenation is eliminated.

4. A hard palm fraction according to claim 1 has a C16 carbon chain residue greater than 70% preferably greater than 80% and most preferably greater than 84%.

5. A hard palm fraction according to claim 1 has a melting point higher than 57 Deg C, preferably greater than 60 Deg C and can be flaked for easy handling because of its high melting point in spite of not being required to undergo hydrogenation and has a solid fat content of > 75% at 40 Deg C preferably > 80% solids at 40 Deg C.

6. A process according to claim 1 wherein palm fat/ palm oil or its stearin fraction is selectively dry fractionated by melt crystallization process to harvest the hard palm fraction with C16 level of > 75%, preferably > 83% with a total unsaturation level of < 15% preferably less than 10%.

7. A process according to claim 6 wherein palm fat/ oil is dry fractionated using two steps melt crystallization process, the first step is being performed between 20-25 Deg C, preferably between 22-24 Deg C, to obtain a medium hard palm fraction and the medium hard palm fraction is then once again dry fractionated between 45-55 Deg C, more preferably 49-52 Deg C depending of the iodine number of the first dry fraction, to harvest very hard palm fraction rich in C 16 fatty acids.

8. A process according to claim 6 in which the palm fraction in the second fraction step is separated in high pressure membrane type filter wherein a pressure of 10-35 bar is used, preferably > 20 bar, most preferably > 30 bar is used to inflate the membrane so as to remove the liquid fraction occluded in the hard fat, thus eliminating the requirement of solvent fraction method. This does not exclude use of high pressure hydraulic pressing of the cooled slab of palm oil fraction to obtain the same desired hard palm fat suitable for the manufacture of hard structural fat (a labor intensive process).

9. A margarine fat blend according to claim 1 wherein the hard structural fat is produced by interesterification reaction of hard palm fraction with hard palm kernel fraction, the resultant hard fat is not further fractionated but used as such as a hard structural fat, thus eliminating a further processing which in turn result in high yield of the structural fat at a lower cost.

10. A margarine fat blend according to claim 1 wherein the hard structural fat is produced by interesterification reaction of hard palm fraction with hard palm kernel fraction without having to further undergo fractionation process, thus eliminating the disposal problems of by-product fractions associated with such processing to obtain hard structural fat.

11. A margarine fat blend according to claim 1 where in the hard structural fat is produced by interesterification reaction of hard palm fraction with hard palm kernel fraction such a way that the hard structural fat has a trisaturated triglyceride of H_3 type of C 16 and above is less than 25% preferably less than 20%.